

ANNUAL REPORT

BLISSYMBOLICS COMMUNICATION INSTITUTE

1981



# ANNUAL REPORT

## BLISSYMBOLICS COMMUNICATION INSTITUTE

1981

### TABLE OF CONTENTS

	<u>PAGE</u>
1. Report of Director .....	1
2. Report of Symbol Office .....	4
3. Report of Training Department.....	9
4. Summary of activities relating to Instruction and Communication Materials Communications and Administration.....	12
5. 1982 Budget Submission .....	14

Appendices





## REPORT OF THE DIRECTOR

1981 has been a transition year for BCI. Beginning in March, with the termination of the role of Chief Executive Officer and the appointment of the new Director, a series of changes have taken place.

The major attention has been directed toward BCI's objectives, taking the necessary action in order to balance the budget for 1981, and trying to build a cohesive and appropriate staff complement to implement the stated objectives.

A revised budget was prepared in July, 1981. Within it, costs were reduced through terminating the services of two staff members (one full-time and one part-time), non-replacement of four full-time and one part-time staff members, and through carefully watching and reducing expenses in all areas of the operation. The assistance and support of the three OCCC administrative areas of Accounting, Personnel and Purchasing throughout this difficult time has been greatly appreciated. As a result of the careful watching of expenses, the October 31, 1981 statement shows a deficit which is within budget except for the outstanding expense for the film Now I Can Speak. This item was not included in the original 1981 budget since funding for this project was to have been obtained by the former Chief Executive Officer through donations. In time, the royalties due to BCI for this film and for Breakthrough will partially offset this expense.

The revised purpose statement of BCI is as follows:

The Blissymbolics Communication Institute is a non-profit organization, working in association with the Ontario Crippled Children's Centre and the Easter Seal Society of Ontario to facilitate Blissymbolics in Ontario. Its programmes include client services (delivered within the Ontario Crippled Children's Centre range of services), Blissymbol system development, training, development of instructional materials and research relating to communication augmentatives. Through its activities, the Blissymbolics Communication Institute offers a standard form of Blissymbolics for world-wide use by communicatively handicapped persons.

Within its objectives, BCI is increasing its initiatives with regard to training and service in Ontario and is sharing its international responsibilities with other experienced Blissymbol professionals around the world.

In keeping with BCI's reduced area of international responsibility, an Affiliate and Resource Centre meeting was held in May, 1981 at which discussion focussed upon the division of tasks between BCI and its Affiliates in North America. The new Affiliate agreement reflects many of the ideas presented at the meeting and increases the responsibilities of Affiliates while reducing the contribution of BCI. (See Appendix i).





To date the following countries and regions have entered the new affiliate relationship with BCI:

Canada	3
United States	4
Non-North American	5

The second half of 1981 has been directed toward indentifying projects for which funding can be sought from Foundations and granting bodies (Appendix ii), exploring funding sources and the requirements for submitting formal requests for financial assistance and meeting with community and corporate leaders to seek assistance both financially and through business consultation. The Kiwanis Club of Toronto and Pilot Clubs of Ontario have continued their interest in and support of BCI.

Links with those involved in the development of technology have been maintained. This is reflected in the report of the Symbol Office and and in the involvement of the Director at the Conference on Blissymbolics and Technology at the University of Surrey, May 1981 (See Appendix iii for paper presented) and BCI's involvement at the Rehabilitation Engineering Society of North America Conference in Washington, D.C., August, 1981 (See Appendix iv for summary report). A paper will be presented at the Fifteenth Hawaii International Conference on System Sciences co-authored by Shirley McNaughton and two Texas Instruments professionals. (See Appendix v for draft). A paper by Shirley McNaughton is distributed by BCI providing preliminary information to Blissymbol users first using personal computers. (See Appendix vi). Several discussions and meetings have taken place with Department of Communications representatives regarding a proposed project involving BCI and Telidon (See Appendix vii). With regard to Telidon, two short programmes describing Blissymbols have been prepared, one at the Ontario Education Communications Authority and one by Hempton Company Limited, for the Department of Communications. Co-operative projects between BCI and the Trace Centre, University of Wisconsin, Madison, continue with the demonstration and distribution of the Blissapple and Bliss-Talking Apple programmes developed by the Trace Centre. BCI works as well with the National Research Council, Ottawa in evaluating two software programmes developed for the Apple personal computer: Applewriter and Turtle graphics for use with specialized controls.

Two pieces of technical equipment have been donated to BCI: a Texas Instruments personal computer from Texas Instruments, Lubbock, Texas; an Apple personal computer by the Zonta Club of Toronto. The Blissymbol printer for the autocom was purchased through the Conn Smythe Research Project and is being used and demonstrated along with the donated equipment, by both the Augmentative Communication Service and BCI.

BCI has been involved in the early planning of a 1982 Non-Speech Conference to be co-sponsored by the Ontario Institute for Studies in Education, University of Toronto, (OISE), BCI, OCCC, and the Ontario Speech and Hearing Association. The 1980 Non-Speech Conference was very successful and contributed much to the growing awareness of the importance of Augmentative Communication in Ontario.

BCI is also working closely with the Canadian Rehabilitation Council for the Disabled in forming a Canadian Committee to work within IPCAS





(International Project for Communication Aids for the Speech Impaired) and to co-ordinate the efforts of professionals in this area in Canada.

BCI has endeavoured to continue to work co-operatively with organizations and professionals with whom it has had a close association in the past, and as well to reduce its activities to more realistically do what its resources allow. This is a difficult balance to maintain and the adjustments necessary must be achieved over the long term.



Digitized by the Internet Archive  
in 2022 with funding from  
University of Toronto

[https://archive.org/details/OTUED\\_8-4-1-4-2](https://archive.org/details/OTUED_8-4-1-4-2)

SYMBOL OFFICESUMMARY OF ACTIVITIES 19811. PUBLICATIONSBCI

1. Blissymbol for Use: editing French translation  
corrections to "white copy" (other lang.)  
corrections to text, coding
2. Blissymbols for Pre-school Children (A. Warrick)
3. Bulletin: 3 issues
4. Manner of Speaking: Italian translation
5. Newsletter (B. Rush): 3 issues (10 articles)
6. Parents' Guide (L. O'wram): preliminary work
7. Handbook (revised): drafts of "System" and "Syntax"
8. Symbol Users' Newspaper (R. Cecchini): 2 issues
9. Syntax paper (P. Parnes): corrections

Non-BCI

1. ASHA journal: cover (U.S.)
2. Bell Telephone: update Special Needs magazine (Can.)  
v. Tonello
3. P. Cashdollar: "Kids Come in Special Flavors" (U.S.)
4. M. Cohen: project report (U.S.)
5. P. Cunningham-Diego: services available in community (unpub) (U.S.)
6. Davis, C.: 2 stories submitted (referred to B. Hehner) (U.S.)
7. D. Disibio: Flower Hospital publication (U.S.)
8. L. Emerick: Speech Corrections: Principles and Methods (U.S.)
9. C. Foss: "Speaking Through Telidon" - Dept. of Comm. (Can.)
10. M.B. Foster: Starting Points in Reading, Level C, Workbook (Can.)
11. Hamilton-Wentworth Collective: 25 stories (Can.)
12. E. Helfman: Blissymbolics: Speaking Without Speech (U.S.)  
article in Family Circle magazine (U.S.)
13. J. Henderson: Living Language (Can.)





- PUBLICATIONS (Non-BCI) cont'd



### III. TECHNICAL AIDS

1. BLISSCII consultation (F. Moelle)
2. Apple vocabulary
3. HandiVoice overlays (2) and guide
4. Synergos (Interactive Design)
5. Stanford Children's Hospital Printer: Display
6. Possum
7. Telidon

### IV. MATERIALS/AIDS

- |         |   |
|---------|---|
| BCI     | <ol style="list-style-type: none"> <li>1. NFB consultation and examination</li> <li>2. Stamps: corrections and reprinting<br/>editing of French <u>Guide</u></li> </ol>   |
| Non-BCI | <ol style="list-style-type: none"> <li>1. Christmas cards (S. Sansone) (U.S.)</li> <li>2. Posters: Alan Currie (Can.)<br/>Lyne Poitras (Can.)<br/>Pilot Club (Can.)<br/>Variety Club (Can.)</li> <li>3. T-Shirts: D. Allison (U.S.)<br/>M. Ellis (Can.)<br/>S. Osborn (U.S.)</li> <li>4. Films: E. McDonald (U.S.)<br/>E. Payne (U.S.)</li> <li>5. Stamps: for Norwegian<br/>German<br/>Hebrew</li> <li>6. Flyers: Jane Green (Can.)<br/>Susan Hornbeck (U.S.)</li> <li>7. Pare, L.: 60 symbols for rubber stamps</li> <li>8. Telidon: sample page</li> </ol> |





V. TRAINING

- for English
1. B. Examination
  2. Worksheets - update
  3. Elementary: revise template section
  4. Interns: (3) consultation
  5. Examination corrections
  6. Registration assistance
  7. Presentor pin layout
  8. Facilitator materials
  9. Attendance at workshop

- for French
1. B. Examination
  2. Worksheets
  3. Elementary Workshop material: overheads, proofreading
  4. Letters (5) re French Training

VI. LEGAL

- CKB - for information
1. Sheet #3 Stamps
  2. Photos of Apple symbols
  3. Newsletter (3 issues)
  4. Bulletin (3 issues)
  5. Presentor pin design
  6. Symbol Users Newspaper (1 issue)
  7. Bulletin (Dec. 1981)
  8. Theriault book
  9. Warrick manuscript

- J. Lemire
1. Macleans magazine article
  2. re U.N. premiere of The Breakthrough
  3. consultation re Hebrew material
  4. re E. Helfman book
  5. re court case: Discovery - information, materials, documentation - J. Lemire, C. Spring
  6. Procedure meeting (for clarification)
  7. Jinny Storr and Shirley McNaughton with Colleen Spring
  8. Theriault, P.: sub-license, payment, letter from CKB.

- H. Silverman
1. Hebrew materials
  2. Preschool symbols: cover design
  3. Words/symbols for HandiVoice
  4. E. Helfman book: review, for possible distribution
  5. Symbols for Norway: different grammatical forms

- Agreements:
1. Symbol Deputy: Sweden



VII STAFF INFORMATION

1. Amerind course
2. Telidon meeting
3. Reports (internal)
4. Apple course
5. Halton Hills Research/Resource Centre meeting
6. Education Seminars (OCCC)
7. Non-speech Conference
8. Meetings

VIII ROUTINE

1. Visitors (e.g. G. Wilson - RADAR, Drs. Kiernan and Shannon - (U.K.))
2. Volunteers
3. Typing, filing, correspondence, phone relief
4. Non-publication symbol requests: BCI/ACS/OCCC/EASTER  
SEAL SOCIETY/EXTERNAL
5. Middleton, J.: symbol suggestions
6. Blandy, D.: copyright information
7. Deegan, S.: requirements prior to publication
8. Buchanan, J.: symbols for Human Development Counsellor
9. Visitors: eg. Ian Hargrave
10. Correspondence/reports
11. Meetings
12. Move office





SUMMARY OF ACTIVITIES 1981

1) Elementary Training Sessions

The training department co-ordinated a total of 26 Elementary workshops through out 1981 (see graph on page 4). This indicates a 27% increase over the number of workshops held in 1980. A geographic breakdown of these sessions is as follows:

Canada	-	13 (8 in Ontario)
USA	-	9
Europe	-	3
Bermuda	-	1

Of the 26 Elementary training Sessions mentioned above 11 took place in new regions. BCI assisted with both the development of new training programmes and new presentors.

The 26 workshops represent a total of \*810 paid participants, a 24% increase over the number of paid participants in 1980.

2) Requests for Elementary Certification

In 1981, the training department received \*40 requests for certification from individuals who had not participated in approved BCI training sessions but were able to successfully complete the elementary examination. The \*40 requests represent a 40% increase over the number of such request received in 1980. The geographic breakdown of these requests is as follows:

Ontario	-	18
British Columbia		19
Alberta	-	1
USA (Maryland)		1
Israel	-	1

3) The Update Programme.

The Update Programme was provided using three different formats, to try to accommodate the various resources and needs of participants who received elementary training before the implementation of of new elementary training programme (June 1980). The first part consisted of worksheets related to the understanding of Blissymbols for Use. Although these were free to Associate Member, (\$5.00 for non-members) the response was very poor.

The second format of the Update Programme was a one day on-site session. Two of these sessions were held at OCCC but again, the response was very poor. The total number of paid participants was 20, indicating a 60% decrease from 1980.

\* These figures are accurate for November 13, 1981. They may be adjusted before the year end as some training sessions are still in progress.



### 3) The Update Programme. (Con't.)

For the third format for this programme, participants could write the new elementary examination. Twenty-two paying participants took advantage of this opportunity to obtain update certification.

### 4) Correspondence/Workshop Courses

Three Correspondence/Workshop Courses were held in Pennsylvania, Florida and West Virginia. A total of 75 participants were trained. This is an increase of 3% over last year.

### 5) Presenter Update

Over the year 6 mailings were distributed to 42 professionals involved in the presentation of BCI training material. The breakdown of these individuals is as follows:

14	Active BCI Sr. Presenter (Canada, U.S., W. Germany, Israel, Australia)
1	other BCI Sr. Presenter
1	UK Committee representative
1	Nordic Committee representative
25	Associate Presentors

### 6) Presenter Training

The Certification Committee approved:

- 1 new Sr. Presenter (US)
- 2 Special Presentors (Canada and Italy)

### 7) Examination

A second form of the 68 question computer exam was developed and is now in use.

A third form of the exam has been written and will soon be ready for a trial run.

### 8) Interns

Four interns were trained in one Internship session during the fall of 1981. This programme had representatives from Canada, the US, Italy and Finland. Although the number of participants represents a 43% decrease from 1980, it was felt by those involved in the planning that the 1981 Interns received a much more comprehensive training programme than when a larger number of Interns were trained.

### 9) Special Interest Workshop

In October a workshop on the Application of Blissymbols with the Multiply Handicapped and Mentally Retarded was co-sponsored by OISE and BCI, with the programme co-ordinated by the Blissymbolics Resource Centre, Suffolk County Chapter, Association for the Help of Retarded Children Bohemia, New York. The workshop was attended by close to 100 participants from all over the world





10) French Training and Examination

The entire French Elementary Training material set and the Examination were updated, upgraded and distributed to French speaking presentors. The material was used in 4 workshops in Quebec and Europe, to train over 100 participants.

11) Miscellaneous

New Certification Policy established;

New Elementary Training certificates distributed;

Sr. Presentor Certificates and Pins developed and distributed.

\* These figures are accurate for November 13, 1981. They may be adjusted before the year end as some training sessions are still in progress.

12) Training Department Enquires - 1981

Elementary	275
General Training	50
Hosting Elementary	50
Internship	40
Correspondence Course	5
Special Interest	60
Update	15
Presentor Training	10
	<hr/>
TOTAL	550

13) Promotion of Training Session - 1981

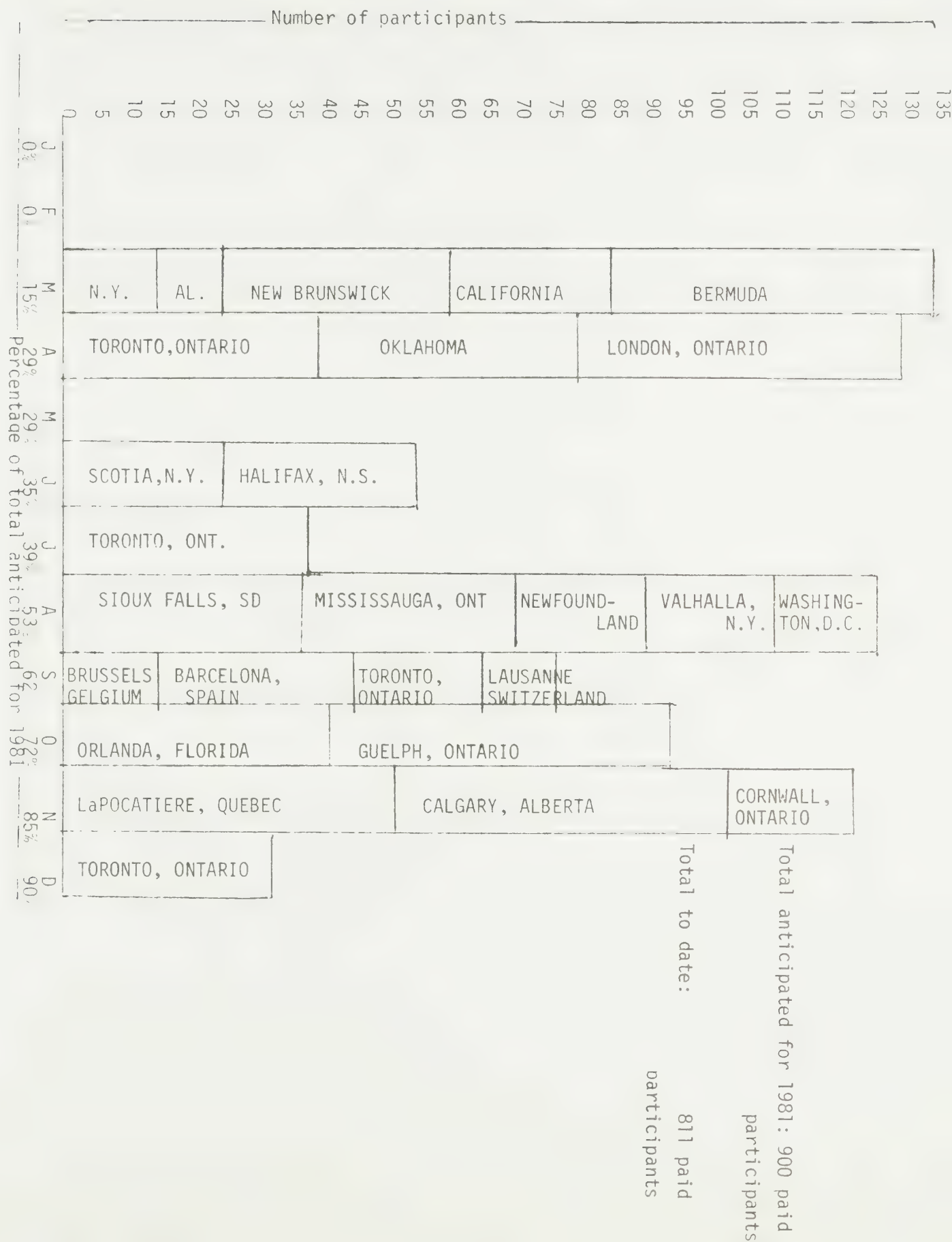
500 mailings to potential hosting centres or workshop participants.



## ELEMENTARY TRAINING SESSIONS - 1981

Number of Paid Participants

December 31, 1981





## INSTRUCTION AND COMMUNICATION MATERIALS

In this department, the non-replacement of staff as they resigned, was most seriously felt. Since July the duties of the co-ordinator of this department and her secretary have been shared by the Communications Officer and the Director. This has not been satisfactory but it has made it possible to keep projects moving slowly and with the help of the shipping-receiving clerk and accounting department, inventory and accounts receivable records have been kept up to date. The area suffering most in this department is that of sub-licensing renewals and negotiating of new contracts:

- (a) Ebsco, our American Distributor negotiated a new contract in July. The final form of the license is yet to be completed.
- (b) Much time was given to exploring the feasibility of a Canadian distributor. In this regard, TASH made a proposal to act as distributor for BCI. The BCI Board of Directors decided the terms were unsuitable and that it would not be in BCI's best interests to enter into the proposed agreement.
- (c) Living and Learning, BCI's United Kingdom distributor is still awaiting finalization of their 1981 proposal.

The BCI Director and a Member of BCI Board of Directors have been seeking consultation in this area and meetings have been arranged during November and December with several business executives in an effort to gain assistance.

Two projects to develop materials for sale have been continued: the second edition of Blissymbols for Preschool Children by Anne Warrick and Guide to Parents by Leesa Owram. There will be a demand for both publications.

The evaluation of the Raised Blissymbol Displays (designed by BCI, produced by NRC) will soon begin. The work will be done by a consultant in Boston, since BCI does not have the staff to supervise the project.

Several projects have been temporarily discontinued due to lack of staff: NFB Slide revisions, Institutional signs, Feathered Friends (a book for children), Revised Handbook, Drawing Guide.

(See Appendix viii for sales figures for months January to October.)





### COMMUNICATIONS

The communications officer prior to leaving BCI co-ordinated the premiere of the 50 minute film The Breakthrough, acted as a liaison with Lauron Productions in their producing of Breakthrough and Now I Can Speak, produced the Bulletin and co-ordinated the activities relating to Associate Membership and Newsletter. Since this position has not been replaced, a part-time project officer and free-lance help are now being used to produce the Bulletin. A new subscription routine has been introduced in the place of Associate Membership (See Appendix ix for Subscription Form). Public relations contacts with the media and community are now being covered by the Director on a restricted basis.

(See Appendix x for general enquiries for the period January 1981 to October 1981).

### ADMINISTRATION

The position of office manager has not been replaced and the responsibilities in this area are being shared by the Secretary to the Director, Receptionist, Director and Volunteers.



1982 BUDGET SUBMISSION

The budget submission for 1982 reduces the activity financed by core funding relating to system development, and concentrates attention upon marketing, development, and distribution of instructional material and development of new training formats. This is done through reinstating the Instruction and Communication Material department with a person responsible for marketing, development and distribution of products, assisted by a half-time secretary. The Symbol Office is reduced to an office co-ordinator and in addition a half-time assistant doing secretarial and layout work. It is hoped that through this structure, along with project funding, BCI can substantially reduce the core funding needed and can further develop the income achieved through its own activities. Other expenses are kept at the low operating cost level of 1981.

The request for funds from ESS is 28% lower than that received in 1981 and demonstrates BCI goal of reducing its need for ESS financial support.



THIS AGREEMENT made this                      day of                      ,  
1981:

B E T W E E N :

BLISSYMBOLICS COMMUNICATION INSTITUTE, a Corpor-  
ation chartered under the laws of the Province of  
Ontario,

(hereinafter called the "B.C.I.")

- and -

(hereinafter called the "Sub-Licensee")

SUB-LICENSING AGREEMENT

WHEREAS C.K. Bliss has invented a written symbol language called Semantography or Blissymbolics for international communication; and whereas the said C.K. Bliss has registered copyrights thereto and has assigned the right to use said symbol system to B.C.I. by way of an exclusive world-wide and perpetual license to use, publish, teach and disseminate said Blissymbolics as a rehabilitation vehicle for the handicapped;

AND WHEREAS the Ontario Crippled Children's Centre during the years 1971 to 1975 developed a communication system based on Blissymbolics as a rehabilitation vehicle for the communicatively disabled; and whereas the Ontario Crippled Children's Centre has permitted the BCI (under BCI's license with the said C.K. Bliss) to continue development of symbol systems for the handicapped under the name Blissymbolics and teaching material and methods therefore;

AND WHEREAS B.C.I.'s object is to promote the availability of its rehabilitation systems to the world's handicapped;

AND WHEREAS certain responsibilities of B.C.I. and the Sub-Licensee during the term of this agreement are set out in Schedule "A" attached;

IN CONSIDERATION THEREFORE of the sum of FIFTY (\$50.00) DOLLARS now paid to B.C.I., B.C.I. grants to the Sub-Licensee a sub-license for the use of Blissymbolics for the purposes set forth in Schedule "A" and B.C.I. and the Sub-Licensee further agree as follows:

1. The Sub-Licensee agrees to adhere to the design, structure, and combination of Blissymbols as standardized from time to time by B.C.I.
2. Without limiting the generality of Clause "1", B.C.I. agrees that the Sub-Licensee shall be able to use any new symbol





for strictly private use (as determined by the B.C.I.). All such new symbols are to be submitted to B.C.I. for approval before any public or continued use.

3. B.C.I. shall have a universal and perpetual license to sub-license use or publish any new symbol, devised by the Sub-licensee, as part of the continuing and ongoing standardized Blissymbolics without remuneration to the Sub-licensee and whether or not this sub-license agreement may terminate at some future date.

4. Subject to this agreement between the parties, the Sub-licensee will not make reproductions of the symbols either newly created for the Sub-licensee or part of the standardized Blissymbolics, for the public, or enter into publications concerning Blissymbols, for gain or otherwise, without producing a copy of the same to B.C.I. for approval of symbols and without the consent of B.C.I., and B.C.I.'s copyright notification shall be affixed on all publications.

5. Within its financial ability, the Sub-licensee or its representative will attend at such workshops or meetings held by B.C.I. for its Sub-licensees.

6. This agreement shall run to the termination date set forth in Schedule "A" attached. If no renewal or extension of the Sub-licensing Agreement is negotiated prior to the termination date, such Sub-licensee shall cease to be an affiliate of the B.C.I., all loan materials, if any, shall be returned within two months, and affiliate rights and privileges will be rescinded, but Sub-licensee shall continue to be bound by the obligations set forth in clauses 1 and 4 hereof.

The Sub-licensee shall further be bound by the provisions, and terms of this agreement as set forth in the Schedule hereto.

DATED at Toronto, this                      day of                      , 1981.

SIGNED, SEALED & DELIVERED	)	BLISSYMBOLICS COMMUNICATION
	)	INSTITUTE
	)	
	)	Per: _____
	)	(Director, B.C.I.)
	)	
WITNESS	)	
	)	_____
	)	Sub-Licensee
	)	
	)	

\_\_\_\_\_  
DATE

\_\_\_\_\_  
DATE



## SCHEDULE "A"

The sub-licensee shall be considered as a BCI Affiliate within the area of:

Affiliate's responsibilities and privileges:

1. The development of a structure to meet the above-described area's needs relating to the application of Blissymbolics for communicatively handicapped persons.
2. The support of a unified Blissymbolics system and vocabulary as approved by BCI, by submitting symbols intended for any form of public distribution - in publications and teaching materials such as printed vocabulary displays or stamps, on film or tape, etc. - for inspection and approval by BCI or an approved BCI monitor.
3. Nominating a knowledgeable person to serve as a representative of the sub-licensee's area, on the BCI International Panel on Standards for Blissymbolics.
4. The support of BCI-approved training formats.
5. Ensuring that the translation of publications or communication and teaching materials with which the sub-licensee is involved is of the highest standard.
6. Development (where practicable) of communication and teaching materials to meet local needs. Samples of materials which show potential for broader usage can be forwarded to BCI for sharing with other Affiliates.
7. Serving as a local clearing house for information regarding research in progress and informing BCI of projects and research which can be shared through BCI publications.
8. Providing annually to BCI a short description of the sub-licensee's services for inclusion in a yearly Directory of Blissymbolics services.
9. Participating, as resources permit, in meetings (including the annual meeting of Affiliates) and projects related to the enhancement of Blissymbolics communication for communicatively-handicapped persons around the world.



10. Contributing articles to the BCI Newsletter.
11. Use of BCI logo on letterhead and other related uses, as desired, during the term of the agreement.

BCI's responsibilities:

1. To hold an annual meeting of Affiliates to which each Affiliate is entitled to send two delegates. The purpose of the meeting is to provide an opportunity for learning and information sharing.
2. To include one professional representing each Affiliate on the BCI International Panel on Standards on Blissymbolics.
3. To send to Affiliates all enquiries and information from Affiliate's area which, although initially directed to BCI, would be of primary interest to the Affiliate.
4. From time to time, as resources allow, to directly communicate with Affiliates regarding events, system development and items of special interest.
5. From time to time, to offer special prices on items developed from projects for which outside funding was provided.
6. To notify Affiliates of BCI training sessions which affect Affiliate's geographical area.
7. To notify Affiliates of new applications for affiliation which affect the Affiliate's geographical area.
8. To provide informal assistance and consultation as resources allow.
9. This agreement shall run for a period of one year from the date of signing. At time of expiry, if conditions of present agreement have been met, the agreement is open for renewal.
10. Fee \$50.00 Payable annually.

Payable: Blissymbolics Communication Institute  
350 Rumsey Rd.,  
Toronto, Ontario  
Canada M4G 1R8

Contact Person:

09/07/81





PROPOSED PROJECTS1. International Symbol Panel.

To continue the development of the system by providing further symbol vocabulary items to those in Blissymbols for Use, funding is needed to support the role of the International Symbol Panel Co-ordinator and to enable the panel members to meet annually as well as to study the system and communicate through regular correspondence.

2. Alternate Training Format to 3-day Elementary Training Workshop.

At least three alternatives should be developed:

- (a) Self-study Kit (in book and audio-visual form) which could have the structure and content for application to Telidon and personal computer software in the near future.
- (b) Audio-visual and support materials for university and private instructors to teach Blissymbolics at 3 levels.
  - (i) Elementary training for BCI certificate
  - (ii) Support staff inservice training
  - (iii) Introductory orientation to the application of Blissymbolics.
- (c) Two-day Introduction to Augmentative Communication to precede self-study in Blissymbolics.

3. Application of Blissymbolics for the retarded.

In conjunction with initial research in this area, to develop an expanded Blissymbol vocabulary, study portable displays, instructional materials and a teacher training programme for persons at a low cognitive level.

4. Demographic Study .

- (1) To identify the incidence of non-speaking persons who require an augmentative communication system
- (2) To describe those who already are using Blissymbols.

5. Sponsoring of:

- Waterloo computer science students.
- Interns
- Material displays for conferences.
- Application of computer technology to Blissymbol publications and system developnent, as well as to BCI administrative and communication functions.



TECHNOLOGY AND BLISSYMBOLICS

FROM BCI'S PERSPECTIVE

BY SHIRLEY McNAUGHTON, M.ED.

DIRECTOR

BCI

As first presenter at this conference, I welcome the opportunity of focusing attention upon our purpose in this applied area of technology: IMPROVED COMMUNICATION FOR THE NON-SPEAKING INDIVIDUAL. In a schematic relating to the Augmentative Communication System introduced in the ASHA journal, April 1980, (Appendix A), the *Technique used by a non-speaking person* is portrayed in an interdependent relationship with the two other major components required for successful augmentative communication: *System or Symbol Set* and *Interactive Behaviour*. This model is a useful one and can serve us well as we evaluate Technology for Blissymbolics. The value of any of the *techniques* to be presented at this conference depends upon their effectiveness in utilizing the *symbol set* which is appropriate for the individual (in this instance, Blissymbolics) to allow *interactive behaviour* which is meaningful and accepted by both Blissymbol user and message receiver.

In focusing upon Technology for Blissymbolics as it is used by the individual, we must keep in mind the wide variations in needs and abilities, the importance of correct positioning, and the potential for improvement both in physical capabilities, as in increased hand function, and in cognitive processing, as in mastery of more elaborate encoding systems. Both high and low technology can be required for the same individual, as he/she utilizes a range of aids to meet a spectrum of needs. As we respond to the many types of technology to be presented throughout this conference we will do well to remember our own personal use of a myriad of communication techniques: speech, writing, typewriters, dictaphones, telephones, tape-recorders, over-head projectors, computers, - to name a few. Utilizing various techniques to effectively realize the full range of an individual's communication capabilities is a worthy task, even for the speaking person. For non-speaking individuals it is a formidable challenge, requiring our co-ordinated efforts. For them, the successful use of any technique, be it high or low technology, requires appropriate matching of the techniques to the individual



through specialized assessment; comprehensive training of user, instructor and family; on-going follow-up support; equipment maintenance; adjustments to meet the development of new needs; and community acceptance and support.

The importance of Blissymbolics (Bliss, 1965; Silverman, 1979; McDonald, 1980; McNaughton & Kates, 1980) for persons who are unable to use traditional orthography need not be stressed here. Its place within the Augmentative Communication Systems of thousands of individuals around the world is well known by those attending this conference. Since their beginning use in 1971, we have seen Blissymbols directly accessed on paper and PVC (Polyvinyl Chloride) displays; displayed on electronic boards on which LED's (light emitting diodes) indicate the symbol intended; presented on CRT (Cathode Ray Tube) screens; produced by several types of printers; and used in conjunction with synthetic speech. For the many non-speaking persons who do not read traditional orthography fluently, Blissymbolics provides a critical component within their Augmentative Communication Systems.

This conference, through its broad representation from many professions serves well in reminding us of the importance of co-operation between disciplines in ensuring the successful use of any Technology for Blissymbolics.

The Blissymbolic Communication Institute, Toronto, Canada, endeavours to support and facilitate the application of Blissymbolics within Technology through:

- 1) Providing the Blissymbols to projects in appropriate and BCI-approved forms during the projects' research and development stage, as well as at the production stage;
- 2) Co-ordinating efforts to establish and disseminate information regarding standards for Blissymbols in all their commercial and production presentations (including through printers and CRT displays);
- 3) Maintaining communication links with professionals involved in research and development relating to technology and Blissymbols;
- 4) Disseminating through BCI publications information regarding technical equipment which utilizes BCI-approved Blissymbols;
- 5) Participating in the Canadian Committee for Communication Aids for the Speech-Impaired, associated with IPCAS, International Project on Communication Aids for the Speech-Impaired;





- 6) Participating in research and evaluation studies in co-operation with other organizations.

In recent months, BCI has provided assistance to the Trace Centre, Madison, Wisconsin, for their development of software to display Blissymbols on the Apple Personal Computer and for their development of a Blissymbol printing capability for the Autocom (Silverman & Kelso, June 1977); to the Rehabilitation Engineering Centre of Stanford Children's Hospital, California, through the development of a "240" vocabulary for their Blissymbol printer; to the Suffolk Association for the Help of Retarded Children, New York, for the development of raised symbols for visually-impaired persons; to Phonic Ear Incorporated, California, for development of Handivoice Blissymbol displays; to Norpak Incorporated and National Research Council, Ottawa, Canada, through development of a vocabulary for a Blissymbol terminal (Giddings, Norton, Nelson, McNaughton, Reich, 1979); to the Rehabilitation Technology Unit of the National Research Council, Canada, for the development and evaluation of raised Blissymbol displays originally conceived at West Seneca Regional Centre, New York; to Texas Instruments, Lubbock, Texas, through providing Blissymbols for a demonstration instructional programme which utilizes Blissymbols and synthetic speech; to the Ontario Education Communication Authority, through creating a programme to be included in the educational field testing of Telidon; to the Department of Communication, Canada, Blissymbols to demonstrate the graphic capabilities of Telidon; to the Rehabilitation Engineering Department of the Ontario Crippled Children's Centre, Blissymbols for use within an interface control and selection study (Basacchi, 1980 & 1981); to the Department of Speech Communication, Royal Institute of Technology, Stockholm, Sweden, to assist in their development of a portable speech synthesis aid (English speech), (Carlson, Galyas, Granstrom, Hunnicutt, Larsson, Neovius, 1981).

Through funding provided by the Conn Smythe Research Foundation for Crippled Children, 350 Rumsey Road, Toronto, Canada, an evaluation has been undertaken of the capabilities for the Blissymbol User of the Norpak Blissymbol Terminal, the Trace Centre Blissymbol printer and the Apple Personal Computer. The results of this study will be distributed through the Blissymbolics Communication Institute in the fall of 1981.



Technology for Blissymbolics has produced impressive results with many examples of international co-operation. Conferences such as this provide an excellent opportunity to review and evaluate our progress to date, to share ideas, to benefit from the insights and achievements of others and to renew our efforts to ensure that technical development is relevant to Blissymbol users' needs, furthers the effectiveness of the system of Blissymbolics and is applied in an appropriate and beneficial way.

The Blissymbolics Communication Institute congratulates the Biological Engineering Society (Rehabilitation Engineering Group) and the Blissymbolics Communication Resource Centre (U.K.) in organizing this conference. It is a very fitting and worthwhile contribution to the International Year of Disabled People.

The Blissymbolics Communication Institute, as it continues its work in developing the system of Blissymbolics for non-speaking persons, looks forward to participating in, and providing assistance to an increasing number of applications of Technology for Blissymbolics.



A SCHEMATIC OF AN AUGMENTATIVE COMMUNICATION SYSTEM

AUGMENTATIVE COMMUNICATION SYSTEM

<u>Technique</u>	<u>Symbol Set/System</u>	<u>Communication/Interaction Behaviour</u>
(Means to Transmit Idea)	(Means to Represent Idea or Concept)	(As Necessary to Have Idea Received and Understood)
- unaided	Blissymbolics	
- aided	Rebus	
	Traditional Orthography	
	Signs of ASL	
	Signs of SEE	
	Spoken Words	

From:

Non Speech Communication: A Position Paper  
ASHA Journal, April, 1980





# Blissymbolics at RESNA event

Blissymbols were well represented at the Rehabilitation Engineering Society of North America's fourth annual conference held in Washington August 31 through September 3.

Several papers presented were related to the Application of Blissymbolics:

1. Microprocessors and Communications for the Handicapped by Ann Colquhoun, Shirley McNaughton, Brian Wilson and Maurice Izzard.
2. A multi-language Portable, Text-to-Speech System for the Disabled by Rolph Carlson, K. Galyas, Bjorn Granstrom, Sheri Hunnicutt, Bjorn Larsson and Lennart Neovius.
3. Sahara II: Speech Prosthesis for the Non-speaking Handicapped by Francoise Emerard, Patrick Graillot and André Sylvestre.
4. A Clinical Evaluation Procedure for Communication Equipment for the Speech Impaired - a case study with

recommendations on the Blissymbol Terminal and M.C.C.S. by Ron Levy, Keila Waksvik and Peter Nelson.

Several displays at the conference demonstrated Blissymbolics:

1. The Department of Speech Communication and Music Acoustics, Royal Institute of Technology, Stockholm, Sweden demonstrated Blissymbols and synthetic speech.
2. The Rehabilitation Engineering Centre, Children's Hospital at Stanford displayed a Blissymbol printer.
3. The Trace Centre, University of Wisconsin, Madison demonstrated Blissymbols and synthetic speech.
4. The Blissymbolics Communication Institute displayed the Norpak Blissymbol terminal, the Blissymbol printer with the autocom, the Apple computer, and Telidon.

The conference provided an excellent opportunity to discuss the developing capabilities of synthetic speech, the evaluation of the Stanford printer, Blissymbols and Telidon, and the progress of BLISSCII.

Greg Vanderheiden and Frederick Moell were joined by David Kelso and Fraser Shein to further refine the coding system for BLISSCII. This work continues and additional news about BLISSCII will appear in future Bulletins.

Copies of the conference proceedings may be obtained from:

Northwestern University  
Rehabilitation Engineering Program  
345 East Superior Street  
Room 1441  
Chicago, Illinois 60611

## BCI assists in printer evaluation

In cooperation with BCI, the Rehabilitation Engineering Centre, Children's Hospital, Stanford is developing a Blissymbolic  $\oplus$ Printer.

This device offers a less expensive alternative to other systems being developed. It uses a microcomputer to print Blissymbols on a dot matrix printer. The printer provides a choice of 240 Blissymbols arranged on a horizontal cylinder.

The current model of the Blissymbolic  $\oplus$ Printer is a prototype and will undergo field testing this fall. BCI is assisting in the evaluation. For further information contact BCI on:

Auston Ellmore  
Rehabilitation Engineering Centre  
Children's Hospital, Stanford  
520 Willow Road  
Palo Alto, California  
94304  
(415) 327-4800



*Symbol users demonstrated their skills and creativity at the first ever computer recital held at BCI in late July.*



Shirley McNaughton\*

Granville Ott+

Robert Hendren+

Abstract - Blissymbolics is a graphic, meaning-based communication medium which has become recognized during the 1970's as an effective communication system for people of a variety of intellectual and disability levels. There are two major advantages of Blissymbolics over other augmented communications systems: (1) the user need not know how to read, spell or analyze words into their phonetic components, and (2) the user can produce messages which are concise and efficient by attending directly to the meaning intended and including only essential information. The time and physical movements required to produce a message are kept to a minimum. Because of these and other advantages, the current, conservative estimate of Blissymbol users is over 20,000 in at least 14 countries.

The purpose of this article is first to discuss how Blissymbolics can act as a bridge from the non-speaking person to other people with the aid of synthetic speech. Next, we will describe how synthetic speech, through the use of the TI-99/4 Personal Computer, can be used to enhance the teaching, learning, and use of Blissymbols. Finally, a short software program that demonstrates the potential use of synthetic speech and Blissymbolics will be presented.



- 
- \* Shirley McNaughton is with the Blissymbolics Communication Institute, 350 Rumsey Road, Toronto, Ontario, Canada, M4G 1R8.
  - + Granville Ott and Robert Hendren are both with the Consumer Products Group, Personal Computer Division, Texas Instruments Incorporated, Box 10508, M/S 5890, Lubbock, Texas 79408.



## ABSTRACT

Personal Computers and Blissymbolics

This paper is written for Blissymbol users, to acquaint them with developments, throughout the seventies which make feasible the utilization of personal computers to display Blissymbolics. An introduction and guide is given for the Blissymbol user considering the acquisition of a personal computer and projections are made as to future developments in Blissymbol communication using computer technology. Information is presented relating to the graphic capabilities of several currently available personal computers and examples of Blissymbols are included. The focus of the paper is upon the need for Blissymbol users to learn about a technology which has the potential for providing exciting new educational, avocational and vocational opportunities.

by Shirley McNaughton





TELIDON AND THE SPEECH IMPAIRED

Talk delivered at

The 9th Annual Conference of

The Canadian Association for Information Science

Pointe-au-Pic, Quebec

May 29, 1981

by

Dr. Barbara Robertson



## TELIDON AND THE SPEECH IMPAIRED

A recurring theme of this conference has been a concern that all sectors of society have an equal opportunity of access to information as videotex technology becomes more and more widely used. The topic of this paper, the development of Telidon technology for the needs of the speech impaired, is related to this concern. As a subgroup of the disabled community, the speech impaired have special needs and can potentially benefit greatly from developing telecommunications technology. Whether or not the potential is realized will depend on two factors, one short-term, the adaptation of technology for their needs, and one long-term, the ability to afford the costs related to data base content and operation. This paper will outline current federal government R&D activities for the development of a Bliss Telidon communication system and will identify problems of a more long-term nature which will have to be addressed by the disabled community themselves.

### Who are the Speech Impaired?

Within the category of those termed "disabled" are many sub-groups. These groups are difficult to categorize because individuals who comprise them have differing characteristics. Within a group individuals may have the same impairment in common, but may individually suffer, in addition, a whole other range of disabilities. Furthermore, the same disability will affect different individuals with varying degrees of severity. Not uncommonly the same disability in a number of individuals will have come about from a variety of causes. Consequently, any attempt at categorization of disabled persons will inevitably lump together persons who have a range of disabilities, of severity of affliction and of pathologies. The speech impaired are a case in point. They are found among the cerebral palsied, the mentally retarded, the aphasic, the deaf, the autistic and the multi-disabled. They span a range of cognitive abilities and age groups. Their identifying characteristic is the lack of ability to communicate verbally and/or by other means. Some of them have the ability to learn to read; some do not. All of them need a quick and easy means by which they can communicate and be taught. Many suffer from a lack of mobility which prevents them from holding jobs. They live in a world of limited horizons, closed off as they are by restricted person to person communication, ability to access information and opportunity for gainful employment.



### How many Speech Impaired are there?

Hard statistics about the number of disabled (and their various sub-groupings) are difficult to ascertain since few countries in the world have engaged in systematic research in this area. However, it is known that in the United States there are some 35 million handicapped persons, and of those, 1% or 350,000, are non functional in speech. It has been estimated that the symbol system for the speech impaired, Blissymbolics, is used by a mere 30,000 persons in the whole of North America. It can be seen that this number represents a small percentage of the total who could potentially benefit from this system.

A breakdown of the total number of disabled into sub-categories reveals that in the mentally retarded group only 10% are at present using Blissymbolics. Of stroke victims a mere 1% of potential users are benefitting from the system. These figures all speak a tragic story, the majority of speech impaired sufferers are not at present able, for one reason or another, to make use of a means to communicate which already exists for them, Blissymbolics.

### Where are the Speech Impaired Located?

Since a wide variety of disorders correlate with speech impairment a number of different kinds of institutions administrate to their needs. These include residential schools, in-treatment centres, orthopedic schools, in schools for the retarded and home settings.

### What are their needs?

As was mentioned above, the speech impaired are in most desperate need to have a means to communicate with each other, with relatives and friends and with teachers. If they are to participate in society they must have equal opportunities of education and of employment. As well, they should have equal access to the information and services enjoyed by the rest of the public. In order for these goals to be reached a number of requirements must be met:





- . the creation of a visual code which would allow the users to create messages by choosing symbols
- . a means for transmitting the code
- . a means by which the disabled themselves can operate the communication device
- . an infrastructure of support staff trained in the skills of teaching with, and about, that code

The code exists. It is called Blissymbolics. It was developed in the late 40's by Charles Bliss and is now used in some 26 countries worldwide. It is a visual symbol system which initially comprised a small number of symbols and which today has been expanded to a repertoire of some 1500 standardized symbols by the Blissymbolic Communication Institute of Toronto, Ontario.

There has been a start made towards developing the infrastructure needed to teach with and about Blissymbolics and to create educational materials for users. The Blissymbolic Communication Institute has been the chief instrument for standardizing, expanding and developing applications of the Bliss code. It operates a service which handles referrals, runs assessments and trains the large numbers of persons necessary to interact with Blissymbol users. It develops instructional materials for use within the service and it evaluates symbols for inclusion within its standardized vocabulary. It also develops teaching techniques for training new teachers. Its students come from as far away as Mexico, although the majority reside in Ontario. A comparison of the total number of speech impaired in Canada and the number being reached by the Blissymbolic Communication staff makes it obvious that many more trained personnel are needed and that material for their educational use must be developed.



The means for communicating the Bliss code has taken several forms to date. The most primitive, technologically, are the sturdy display boards which present an array of coloured symbols and which fit on the user's wheelchair or at his workstation. These are still being used, in conjunction with computer displays. The next stage of sophistication emerged with the application of image communications technology. Herb Bown and Bill Sawchuk working with interactive graphics on the Space Program at the Communications Research Centre of the federal government developed a terminal which generates Blissymbol displays. It uses a Picture Description Instruction protocol which is the heart of the Telidon system today. The terminal has a two page vocabulary from which the user can select a sequence of seven symbols to create a message. He does so by means of a light pen pointed at the screen which causes the symbol to move to the bottom of the screen. The message can be saved, corrected, or erased, as desired.

The next terminal to be developed was a joint effort of the NRC Medical Engineering Division and Norpak. NRC's Medical Engineering Division addressed itself to making the terminal useable by a wider range of disabled by providing custom input devices to activate it. Peter Nelson of NRC has been, and is currently engaged in developing more rugged and useful custom input switches to activate Telidon terminals home monitoring systems, etc. The Blissterm, as the NRC terminal is dubbed, has an expanded vocabulary of 517 symbols and these symbols are selected by means of a moving cursor to create a message. The improvements over the first terminal lie in the expanded vocabulary, user control over the scanning rate of the cursor and an expanded set of custom input devices. However, an evaluation carried out by Ron Lévy of the Université de Montréal revealed that a number of features were still unsatisfactory. The terminal limits its range of potential users by accepting only a narrow range of input devices and by presenting a limited vocabulary. It is not sufficiently rugged and it is prone to frequent breakdown.



At present, the Department of Communications is considering a project which would further develop Telidon videotex technology to build on previous experiments and to expand the capability of telecommunication technology to meet the needs of the speech impaired. The project's goal is the establishment of an operational Bliss Telidon system at the Blissymbolic Communication Institute in Toronto, Ontario. The system components would include Telidon videotex terminals with the capability of generating text, graphic and Blissymbol displays, a data base with Blissymbolic educational and pedagogic content and information provider terminals. The user terminals would be able to communicate with other user terminals as well as to access data on public and private data bases. Such a system would allow the speech impaired to communicate with each other, with teachers and with their relatives. It would provide teachers, therapists and families with a means of teaching with and about Blissymbolics. The data base material could potentially be accessed by users and professionals across the country, establishing a special new network, a Blissnet. This would have the effect of opening up the world of information and services to the speech impaired. If successful, the system at the Blissymbolic Communication Institute in Toronto would serve as a model for other centres across Canada and around the world.

That is the potential. What chance does it have of being realized? Here I must refer back to my initial remarks where I mentioned short-term factors and long-term factors. Short-term factors are those which relate to research and to the design of prototypic models. The Department of Communications under the Augmented Telidon Program has dedicated some \$8 million to R&D Telidon videotex technology. Part of that will fund applications for the disabled-closed captioning and a Bliss Telidon system in this International Year of Disabled Persons. But long-term, information will have to be gathered and placed in data banks. At the moment, very little resource material exists for use by the disabled. Data base storage and accessing costs will have to be met. If disabled persons are to have equal access of information and to share in the benefits that Telidon videotex technology offers, these issues will have to be addressed. Long-term it may very well depend on what J.L. Campbell from Bell



Canada identified earlier today, "the political acumen of volunteer and non-commercial organizations". The disabled depend on technology more than any other group in society. In human terms they have more at stake in the resolution of the problem of equal opportunity of access to information.





INSTRUCTION AND COMMUNICATION MATERIAL1981

<u>PERIOD ENDING</u>	<u>ACTUAL MONTHLY REVENUE</u>	<u>YEAR TO DATE REVENUE</u>	<u>ACTUAL MONTHLY EXPENSE</u>	<u>YEAR TO DATE EXPENSE</u>	<u>MONTHLY NET GAIN</u>	<u>YEAR TO DATE NET GAIN</u>
January 31	9,961.20	9,961.20	8,797.52	8,797.52	1,163.68	1,163.68
February 28	20,581.92	30,543.12	3,114.25	11,911.77	17,467.67	18,631.35
March 31	16,573.42	47,116.54	5,256.25	17,168.02	11,317.17	29,948.52
April 30	12,418.84	59,535.38	3,551.64	20,719.66	8,867.20	38,815.72
May 31	13,758.30	73,293.68	5,228.15	25,947.81	8,530.15	47,345.87
June 30	9,501.16	82,794.84	5,580.93	31,528.74	3,920.23	51,266.10
July 31	19,372.75	102,167.59	11,962.05	43,490.79	7,410.70	58,676.80
August 31	26,766.87	128,934.46	15,765.35	59,256.14	11,001.52	69,678.32
September 30	10,653.40	139,587.86	4,261.19	63,517.33	6,392.21	76,070.53
October 31	5,252.67	144,840.53	2,205.81	65,723.14	3,046.86	79,117.39
November 30	11,386.36	156,226.89	4,782.27	70,505.41	6,604.09	85,721.48
December 31	13,133.22	169,360.11	4,788.44	75,293.85	8,344.78	94,066.26

Monthly Average 14,114.00



BCI SUBSCRIPTION FORM

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

\_\_\_\_\_  
POSTAL CODE \_\_\_\_\_

General	Bulletin	4 X yearly	
Subscription	Newsletter	3 x yearly	\$30.00
	Resource		
	Directory	1 X yearly	

Organizational	3 copies of each issue	\$80.00
Subscription	of the above items	

Subscription to	3 issues yearly	\$5.00
Symbol Users'		
Newspaper		

Special Subscription	3 issues yearly	
to Symbol Users'	pen pal list 1 X yearly	\$2.00
Newspaper (for symbol		
users only)		

PLEASE ENCLOSE CHEQUE PAYABLE TO BLISSYMBOLICS COMMUNICATION INSTITUTE

SUBSCRIBERS RESOURCE DIRECTORYI wish to be entered in the directory ☐I do not wish to be entered in the directory ☐

MY NAME: \_\_\_\_\_

NAME OF CENTRE: \_\_\_\_\_

ADDRESS OF CENTRE: \_\_\_\_\_

\_\_\_\_\_  
POSTAL CODE \_\_\_\_\_

BRIEF OUTLINE OF BLISSYMBOL SERVICE: \_\_\_\_\_

NUMBER OF BLISSYMBOL USERS SERVED YEARLY \_\_\_\_\_



GENERAL ENQUIRIES

JANUARY 1981 TO DECEMBER 31, 1981

CANADA

Alberta	15	Ontario	153
British Columbia	15	Quebec	15
Manitoba	7	Saskatchewan	3
New Brunswick	11	Prince Edward Island	5
Newfoundland	4	N.W.T. & Yukon	2
Nova Scotia	13		

UNITED STATES

Alabama	2	Nevada	1
Alaska	2	New Hampshire	1
Arizona	5	New Jersey	15
Arkansas	1	Nebraska	1
California	18	New Mexico	2
Colorado	6	New York	62
Connecticut	5	North Carolina	8
Delaware	1	North Dakota	4
Florida	6	Ohio	21
Georgia	5	Oklahoma	1
Hawaii	2	Oregon	2
Illinois	20	Pennsylvania	13
Indiana	7	Rhode Island	1
Iowa	3	South Dakota	6
Kansas	1	South Carolina	1
Kentucky	6	Tennessee	1
Louisiana	3	Texas	16
Maine	1	Utah	2
Maryland	12	Vermont	2
Massachusetts	18	Virginia	12
Michigan	11	Washington	4
Minnesota	10	West Virginia	2
Mississippi	1	Wisconsin	8
Missouri	4	Wyoming	2



ASIA

Hong Kong	2	Philippines	2
India	7	W. Malaysia	1
Malaysia	4	Guam	1
Indonesia	1		

EUROPE

Belgium	1	Malta	1
England	7	Portugal	1
France	11	Romania	1
Greece	1	Scotland	1
The Netherlands	3	Sweden	3
Ireland	2	West Germany	2
Italy	3	Spain	3

OTHER

Australia	5	Mexico	5
New Zealand	4	Guatemala	1
Africa	1	Tasmania	1

SOUTH AMERICA

Argentina	1
Venezuela	1
Brazil	2
Ecuador	1







